DTV Converter Box

User's Manual

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Safety Warning

Instruction Markings:

General:

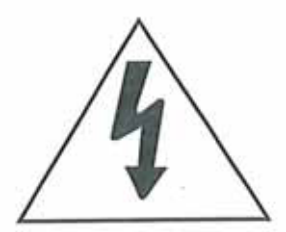
This marking appears on the rear panel of the receiver, painted prominently in contrasting color to the background.

PART 1

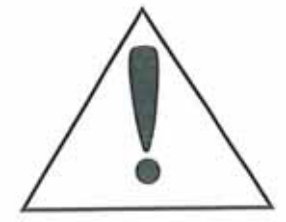
This marking consists of two Graphical Symbols and warning message .The detailed specifications are as follows:

CAUTION: To reduce the risk of electric shock, don't remove cover (or back) .Equipment service and maintenance should be undertaken only by trained personnel.

PART 2



This symbol indicates high voltage is present inside, It is dangerous to make any kind of contact with any inside part of this product.



This symbol alerts you that important literature concerning operation and maintenance has been included with this product.

Safety Warning

IMPORTANT SAFTY INSTRUCTIONS:

Always be careful when using your product. To reduce the risk of fire, electrical shocks, and other injuries, keep these safety precautions in mind when installing, using, and maintaining your machine.

- Be sure to read this user's manual before starting your operation.
- Never open the cover. It is very dangerous to touch the inside of the unit due to possible electric shock.
- When you don't use this unit for a long time, please pull the power cord from the outlet. Also do not use a damaged power cord.
- Do not touch the power with wet hand. If there is liquid flowing into the unit, pull out the power cord immediately because it may cause fire or electric shock.
- Place the unit in a well ventilated and no heat environment.
- Install the unit horizontally. Unbalanced installation may cause the unit to be damaged.
- When the unit is suddenly moved to a hot area from a cold area, it may cause problems. In that case, turn off the power, and turn on after 1-2 hours.
- Install the unit in a place with: good ventilation, suitable temperature, no direct sunrays, low humidity, and low vibration influence.
- Do not put heavy objects on the unit.

Ⅰ. General Information

1 Preface

Thank you for purchasing the product .We designed it with easy-to-use on-screen menus and closed captioning capabilities, making it one of the best products in its class. We are proud to offer you a product that will provide convenient, dependable service and enjoyment for years to come. Please read this user's manual carefully to safely install, use and maintain the product at maximum performance. Keep this user's manual next to your product for future reference.

Note: Instructions and figures in the manual are just for your reference. If any discrepancy exists, the goods are subject to your purchase of practical object.

2 Features

· Fully ATSC compliant.

· Loop Though or Channel 3/4 NTSC RF output.

· Electronic Program Guide (EPG).

· Support 4:3 center cut-out of 16:9 transmitted images, letterbox output of 16:9 letterbox transmitted image, and a full or partially zoomed output of unknown transmitted image.

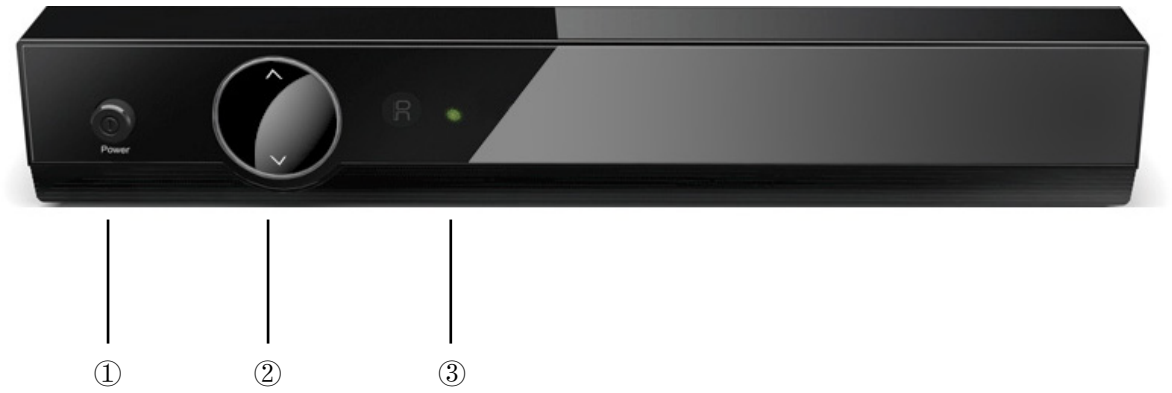
· Closed Captioning, Emergency Alert System (EAS) and Parental Controls (V-Chip).

· Composite Output, 3 female RCA connectors for composite video (yellow connector) & stereo left and right audio (white and red connectors)

· Signal Quality Indicator

II. Overview Of The Equipment

1. Front Panel



1 POWER BUTTON

2 CH+ / CH-

3 IR

II. Overview Of The Equipment

2. Rear Panel

1. **RF OUT**

   Selectable Loop though or CH 3/4 NTSC RF output

2. **RF IN**

   Connect to terrestrial antenna.

3. **VIDEO**

   If your TV or monitor has Audio/Video capability , connect this jack to the AV Input jack on your TV or monitor using an Audio/Video cable

4. **L – AUDIO - R**

   connects these terminals to analog audio inputs of a TV set. Or connect these terminals to the L/R inputs of a separate audio component.

II. Overview Of The Equipment

3. Remote Control Unit

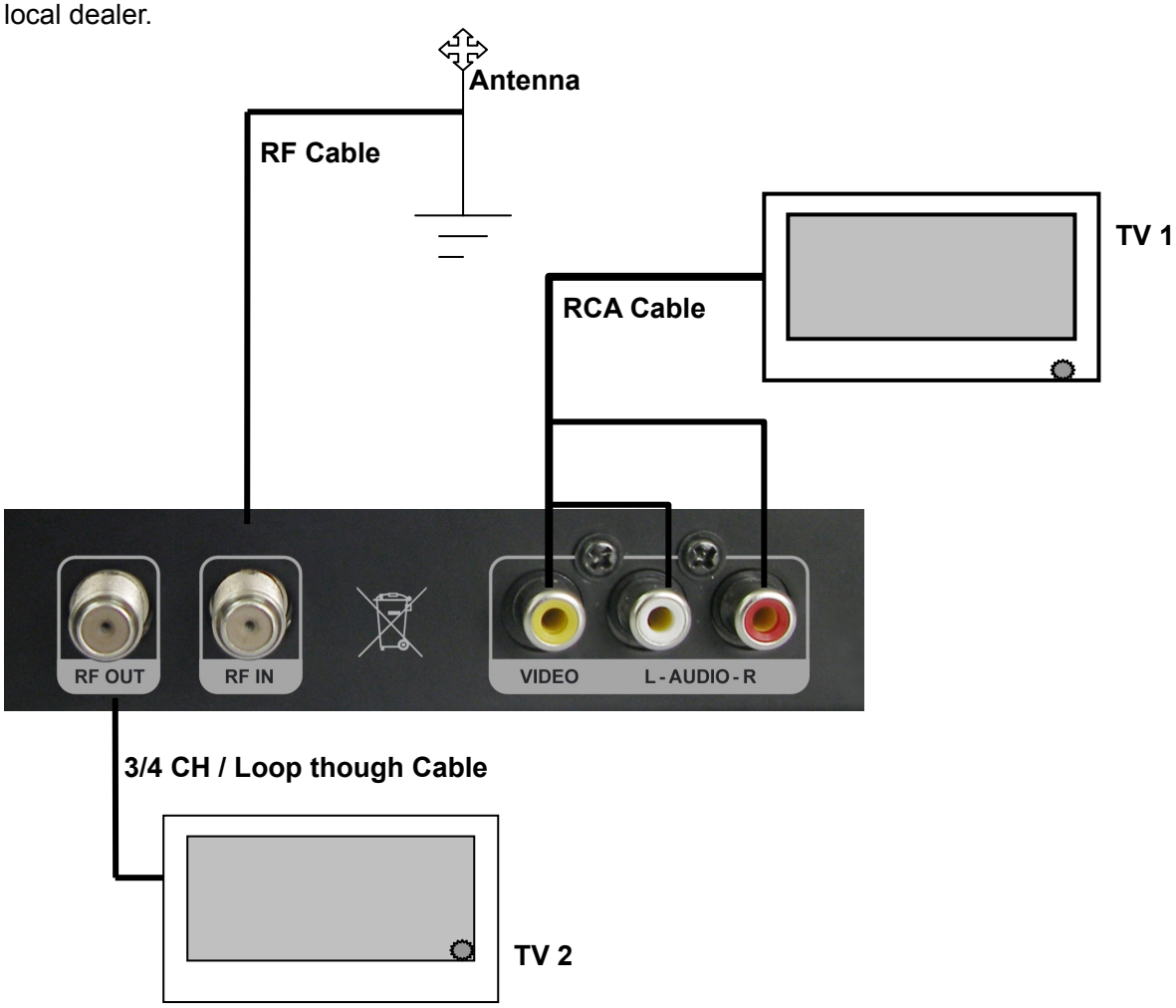
The Set-Top Box remote control and on-screen menu system work together to operate the Set-Top Box as simple as possible. Understanding the remote control buttons and the menus allow you to operate the Set-Top Box with ease.

The remote key list:

- **STANDBY:** Press to switch between Operation and Standby modes
- **MUTE:** Mutes the TV audio
- **0 – 9:** Press to enter required numbers in the input box or select a channel to watch
  Press directly to tune particular channel.
- **– :** Press to input a dash in a virtual channel number
- **CC:** Press to turn CC on or of f
- **MENU:** Press to display the Main Menu on the screen
- **EXIT:** Press to return to the previous menu
- **Up/Down/Left/Right:** Move cursor up/down/left/right
- **CH+/-:** Channel + / -
- **VOL+/-**: Volume + /-
- **OK:** Press to execute the selected item in the menu , or confirm the desired value in input mode
- **FAV:** Press to display the favorite channel list for setting

III. Cable Connections

The following figure shows cable connections required for TV and other related electrical equipment. If you need any assistance for specific equipment connection, please contact your local dealer.



Connections

1. Connect the antenna to RF IN connector.

2. Connect to TV by using RCA cable.

3. Connect the RF OUT for other TV if you want.

NOTES

If your antenna has separate leads for VHF/UHF signals, you will need to purchase a combiner.

The Converter Box can receive DTV signals in the event that a local cable provider is passing 8VSB through on their system.(8 VSB is the RF modulation format utilized to transmit digital bits over the airwaves to the home consumer.)

When Receiving Digital Cable Signal: If your cable service signal does not comply with the ATSC requirement, this product may not operate properly.

IV. Quick Installation

STEP 1: Check the cable connections

Make sure all the cables are connected correctly as figure in chapter of Cable Connections

STEP 2: Turn on the television and switch to video mode

STEP 3: Power on

Turn on the STB by pressing the “STANDBY” switch on the front panel.

STEP 4: Search program

If there is no program stored in the Converter Box, or you want to add new program to program list, you need to auto search program. Please refer to the next Chapter for more details.

STEP 5: Play program

Select the desired program by using CH up/down or digital number keys under the non-menu mode to view.

NOTE: All functions can be operated by using the keys on the RCU (Remote Control Unit), and some of the functions can also be operated by using the buttons on the front panel. If you experience any difficulty with the operation of your unit, please refer to the relevant section in this manual, or call your dealer, or customer service adviser.

V. Menu Operation

Press **MENU** key to display the main menu.
It consists of six items as following:

- **Auto Search**
- **CH Setup**
- **CC Setup**
- **EAS Setup**
- **Parental Control**
- **System Setup**

Figure 1

Use **UP/DOWN** keys to move up and down from one item to another , and press **OK** key to display corresponding sub-menu.

Example:
In the Main menu, use **UP/DOWN** keys to select Auto Search item, and press **OK** key to enter into Auto Search menu. (**Figure 1 - > Figure 2)**

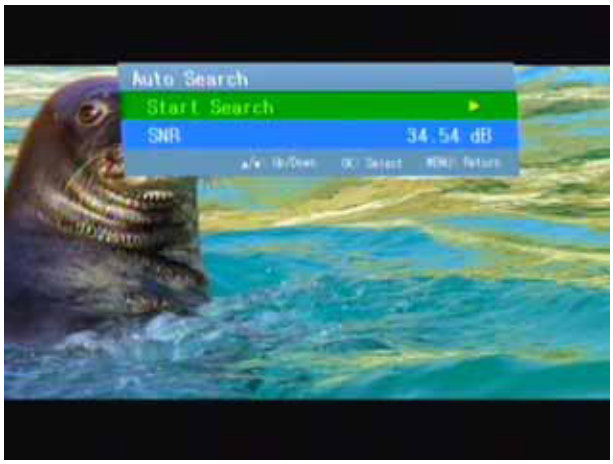


Figure 2

Note: In any page of the menu, you can use EXIT key to return to previous menu page, or press MENU key switch to Main Menu page and then press MENU key again to exit Main Menu.

V. Menu Operation

1. Auto Search

We suggest searching the TV program by using the auto search function in Auto Search menu for first use.

1> Use **UP/DOWN** keys to select Auto Search item in Main menu, you will see the menu as **Figure 2.**

2> Press **OK** key to enter into Auto Searching window (**Figure 3**). System will search channels automatically.

Figure 3

After searching, the searched channels will be added to channel list and system will turn to full-screen mode to view first searched program automatically.

During the searching, you can press **LEFT** key to stop. When auto searching is completed or stopped**,** you will see the information as **Figure 4**

Also, you can press **EXIT** key to exit auto searching mode.

Figure 4

V. Menu Operation

2. CH Setup

In Main menu, select CC Setup item and press **OK** key to enter into Channel Setup menu (**Figure 5**).

Figure 5

·Skip / unskip a channel

If you want to skip a channel, you should use this menu and do the following two steps:

1> Use **UP/DOWN** key to select Channel item, then press **OK** key to select the channel backward or forward that you want to skip.

2> Use **UP/DOWN** key to select the Skip item in Channel Setup menu and press **OK** key to skip current selected channel or not.

Favorite list

In the Remote control unit, you can press **FAV** key to set your favorite channels.

1> Press **FAV** key to enter into Favorite List (**Figure 6**).
2> You can set maximum five favorite channels, use **UP/DOWN** key to moving up/down the highlight item, use **OK** to select the particular channel.

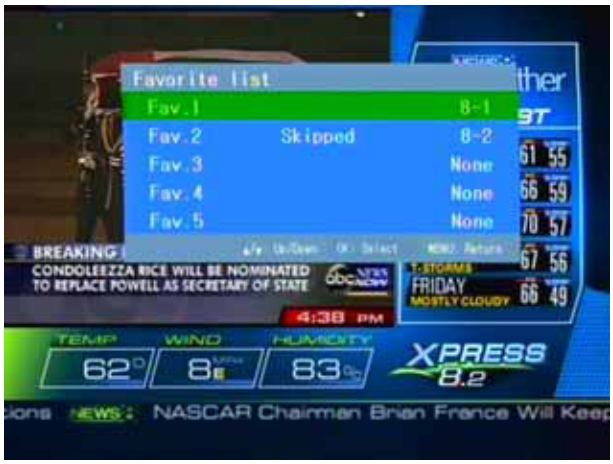


Figure 6

After you set the favorite channel list and exit the favorite list window, you can press **FAV+/-** key to jump into favorite channel and change current channel up or down set in favorite list.

V. Menu Operation

3. CC Setup

In this section, you will get enough information about how to set Closed Captioning (CC608/CC708).

1> Use **UP/DOWN** key to select CC Setup item in main menu ,and press **OK** key to enter into CC Setup menu (**Figure7**).

2> Use **UP/DOWN** key to select a sub item, and press **OK** key to change current item setting.

If you don't want to display the CC when viewing the program , you can set CC Display Off.

Figure 7

If you don't want to change the CC style of current program, you can set CC Mode to Broadcast mode as **Figure 7**. When CC Mode is Broadcast, CC Customer is grayed-out and cannot be edited.

The default value about CC setup menu is following:

CC Display: On;
608CC Type: C1;
708CC Type: Service 1;
CC Mode: Broadcast;

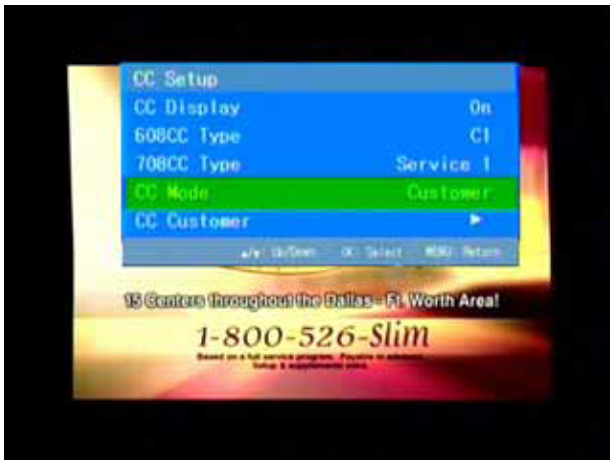


Figure 8

You can set CC style as you like as following:

1> Use **UP/DOWN** key to select CC Mode item in CC Setup menu(**Figure 8**) and press **OK** key to set CC Mode to Customer;

2> Use **UP/DOWN** key to select CC Customer item in CC Setup menu (**Figure 8**), then press **OK** key to enter into CC Customer sub menu (**Figure 9**)

3> In CC Customer menu, you can use **UP/DOWN** key to select sub item and use **OK** key to change setting.

Figure 9

V. Menu Operation

Some important things about 608CC/708CC

1> If you set CC Display On, and the program has CC608 and CC708 at the same time, CC 708 display is higher priority than the CC608 display.
2> If you have not set the 608CC and 708CC type to proper setting, the CC will not be displayed even the current program contains CC information.
3> You can't change CC608 style, such as font, color, or others.

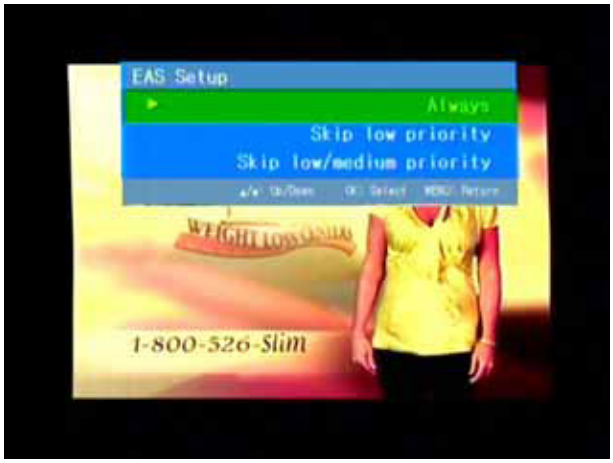
CC Option List

Item	Option	Default
CC Size	Small, Standard, Large	Standard
CC Font	Font0, Font1, Font2, Font3, Font4, Font5, Font6, Font7	Font1
CC Opacity	Solid, Trnsl, and Trnsp	Solid
CC color	Black, White, Red, Green, Blue, Yellow, Magenta, and Cyan	White
Font Edge color	Black, Gray, Red , Green , Blue , Yellow , Navy and Dark Gray	Black
Font Edge type	None, Raised, Depressed, Outline, L.Shadow and R.Shadow	None
Background color	Black, Gray, Dark Gray, Red, Navy, Green, Blue and Yellow	Black
Background opacity	Solid, Transparent	Solid

4. EAS Setup

The system can display EAS (**Emergency Alert System**) message broadcast pursuant to 47CFR11.117 of the FCC Rules.

1> In main menu(**Figure 1),** use **UP/DOWN** key to select EAS Setup item and press **OK** key to enter into EAS Setup menu.
2> Use **UP/DOWN** key to select EAS level and change the current setting.



There are three setting: Always, Skip low priority and Skip low/medium priority. The default setting is Always.

Figure 10

V. Menu Operation

5. Parental Control

Before entering Parental Control menu, you need to input password in order to prohibit from the child to change any settings on the Parental Control.

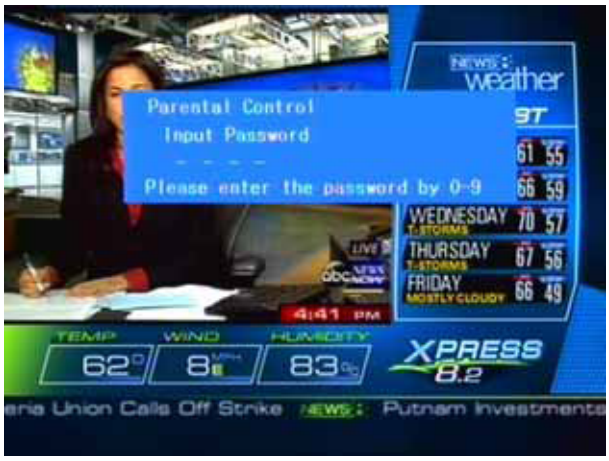


Figure 11

How to enter into Parental Control menu

1> In main menu(**Figure 1),** use **UP/DOWN** key to select Parental Control item and press **OK** key to enter into Parental Control password input page(**Figure 11)**.

2> Input the password by pressing digital number key (default password is : **0000).** If password is invalid, input numbers are cleared and you need to input password again; when password is valid, Parental Control menu will be displayed automatically (**Figure 12)**.

About Parental Control menu

1> Enter into Parental Control menu (**Figure 12**) ;

2> Use **UP/DOWN** key to select sub item and use **OK** key to enter into sub menu or change current item setting.

Figure 12

This menu you can set as following:

·V-chip Setting;
·RRT Setting;
·Block Enable;
·Unrated;
·Change Password;

·V-chip setting

1> Select V-chip Setting item in Parental Control menu(**Figure 12**) and press **OK** key to enter into V-chip setting menu(**Figure 13**).

2> Use **UP/DOWN** key to select sub item and press **OK** key to enter into sub menu.

Figure 13

V-chip Rating includes the following rating level:

·Movie rating
·USA TV Content rating
·Canada English rating
·Canada French rating

V. Menu Operation

Example:

How to set Movie ratings;

1> Select Movie ratings item in V-chip Setting menu(**Figure 13**) and press **OK** key to enter into Movie ratings menu(**Figure 14**);

2> Press **UP/DOWN** key to select sub item;

3> Press **OK** key to set view or block, default setting is view;

☐ - VIEW

☑ - BLOCK

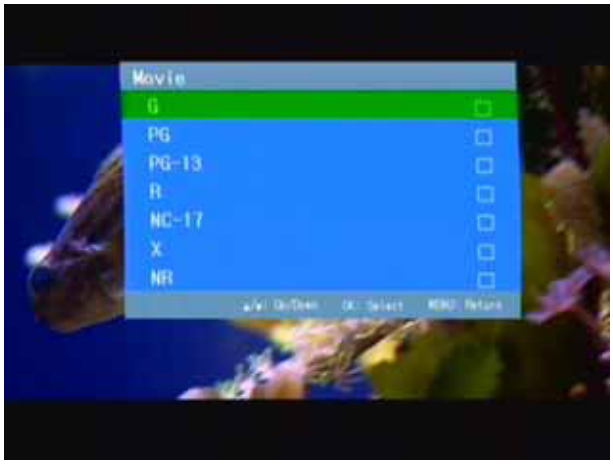


Figure 14

Instruction:

1> Blocking one rating will affect all the higher ratings. For example, blocking “R”, and the above rating “NC-17” and “X” will automatically block, no matter the previous state of these ratings was. If a password is defined while a TV program rating is received from the current channel, then sound will be muted and the following message is displayed on the center of screen. The rating information should be consistent with current program rating.

2> Using the same way to set **USA TV Content** / **Canada English** / **Canada French** ratings.

Figure 15

·**RRT setting**

1> Select RRT Setting item in Parental Control menu (**Figure 12**) and press **OK** key to enter into RRT setting menu (**Figure 16**).

2> Use **UP/DOWN** key to select sub item and Press **OK** key to enter into sub menu. (**Figure 17**).

3> Use **OK** key to set View or Block

Figure 16

V. Menu Operation

Note: if you select Reset item in RRT Settings menu and press OK key, the contents of RRT Setting menu will disappear, you must exit RRT Setting menu and enter into it again to get the contents.

Figure 17

·**Change Password**

1> Select Change Password item in Parental Control menu (**Figure 12**) and press **OK** key to enter into Change Password menu (**Figure 18**).

2> Input the new password , after that, the system will require you to confirm the new password as **Figure 19**

3> Confirmed the password, if success, you will get the message as **Figure 20**

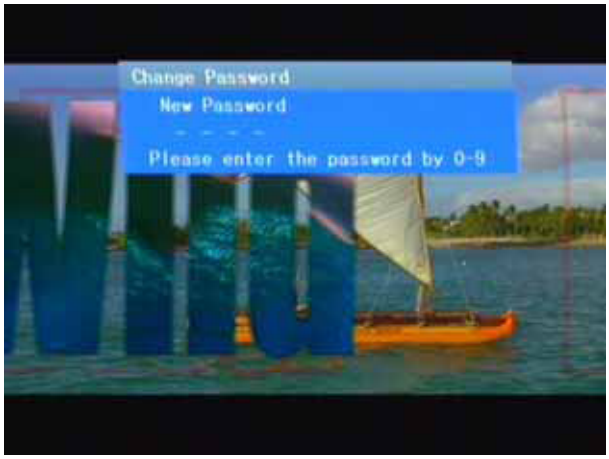


Figure 18

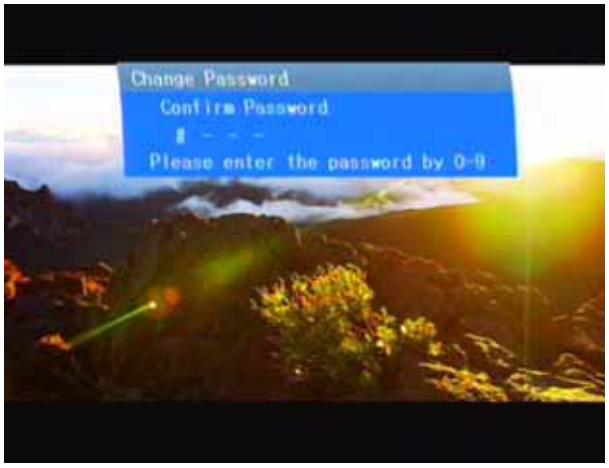


Figure 19

Figure 20

Note: If you want to disable parental control blocking function, you can set "Block Enable" item to "off", or if you want to disable this function completely, you could set "Unrated" item to "off".

V. Menu Operation

6. System Setup

In main menu, select System Setup item and press **OK** key to enter into System Setup menu (**Figure 21**). Press **UP/DOWN** to select item and **OK** key to enter into sub menu or change current item setting.

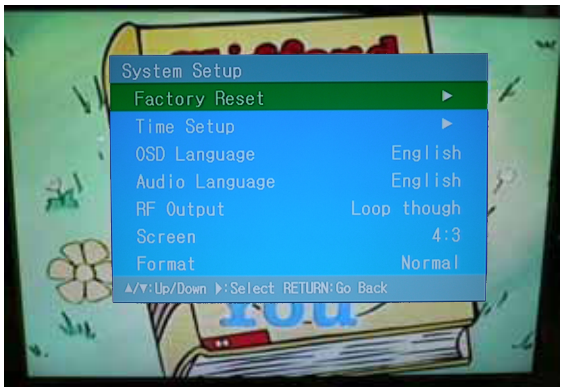


Figure 21

1> **Factory Reset:** Restore system setting parameter to default setting if you press **OK** key when this item is highlighted.
2> **Time Setup:** Enter into a menu for time setup
3> **OSD Language:** Set OSD language to English, Spanish or French, default is English.
4> **Audio Language:** Set audio language to English, Spanish or French, default is English.
5> **RF Output:** Select the loop though or Ch3/4 RF output.
6> **Screen:** Set display screen type, default is 4:3.
7> **Format:** Zoom in or zoom out the picture.

About Time Setup

1> Enter to System menu;
2> Use **UP/DOWN** key to select Time Setup item and press **OK** key to enter into Time Setup menu(**Figure 22)**;
3> Press **UP/DOWN** key to select different item and press **OK** key to change setting.

Figure 22

Instruction:

1> The Clock item displays the current time from programs and you can't change it.
2> The time zone item can set to Eastern, Samoa, Hawaii, Alaska, Pacific, Mountain, Central, Atlantic, Newfoundland, the default is Samoa;
3> The Daylight saving switch, and default value is off.

VI. Special Features

1. Channels List

1> Press **OK** key when TV is showing no menu, the channels list will be displayed (**Figure 23)**, you can get the information about channel number, channel name, skip status of all channels.

2> Press **UP/DOWN** key to select item and Press **OK** key to switch current channel to your selected channel.

Figure 23

2. Electronic Program Guide

1> Press **GUIDE** key to open the EPG window, it displays the first page of program scheduler;

2> Press **RIGHT** key to switch the next page in program scheduler.

3> Press **LEFT** key to switch the previous page in program scheduler.

Figure 24

3. Channel information

Press **DISPLAY** key to get the information of current channel. All the information is following:

[1] Channel number: current channel number.

[2] Channel name: current channel name.

[3] Picture size: current picture

[4] System time: current time of day information.

[5] Program name: current program name.

[6] Program time: time duration of current program.

[7] Audio language: current language in the program

[8] CC&CS: current status of CC

[9] V-chip Info: current program V-chip information.

Figure 25

VI. Special Features

4. Sleep Setting

1> Press **MENU** key to enter into main menu;
2> Select System Setup item and press **OK** key to enter into System Setup menu;
3> Use **UP/DOWN** key to select Power Save Mode item and press **OK** key to change setting.

There are four setting: OFF / 2 hours / 4 hours / 8 hours, and the default are 4 hours.

Note: ***If you pull out the power cord, the setting will be initialized to default value (4 hours).***

Figure 26

5. Audio Language

Press **AUDIO** key to set audio language of the current program.

If the program contains several audio languages, you can switch the audio language between these languages by pressing **MTS** key. The system can display the full language name of English, Spanish, French, German, Italian, Japanese, Chinese, Korean, but others just only use the front three letters of language name instead of the full name.

Figure 27

Set default audio language:

You can set the default audio language in menu:

1> Press **MENU** key to enter into main menu;
2> Select System Setup item and press **OK** key to enter into System Setup menu;
3> Use **UP/DOWN** key to select Audio Language item and press **OK** key to change setting.

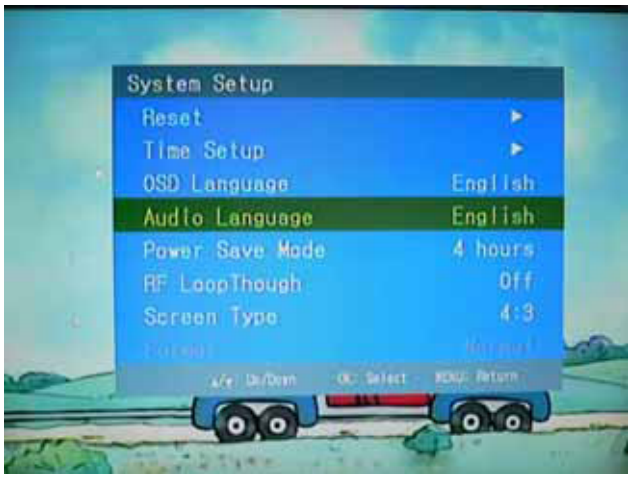


Figure 28

VI. Special Features

6. Signal Strength

Press **SIGNAL** key to display the signal strength of current channel. (**Figure 29**)

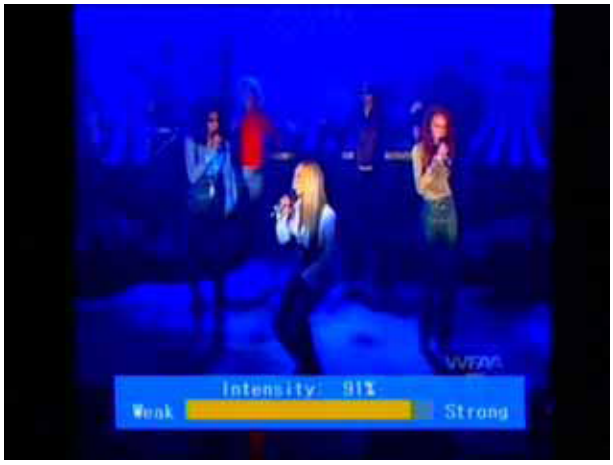


Figure 29

7. 3/4 CH output setting

Figure 30

The system can output channel 3 or channel 4 NTSC RF signal as following:

1> Use a cable to connect "**RF OUT**" converter of the STB(**Figure 30**) and your TV can support CATV input;

2> Auto search the program and change current channel to CH 3 or CH 4 directly by inputting the channel number in your TV;

VI. Special Features

8. Loop though output setting

The system can select the loop though as following:

1> Use a cable to connect “**RF OUT**” converter of the STB(**Figure 30**) and your TV can support CATV input;

2> Auto search the program to the target channel.

3> Go to the Setup Menu and **On/Off** the loop though RF output.

Appendix

Trouble Shooting

If you have difficulty with your digital TV set-top receiver, there are several possibilities you should investigate before calling for a service technician.

Problem	Possible Causes	What To Do
The display on the front panel does not light up	Power cord is not connected	Check that the power cord is plugged into power socket
No sound and no picture	The receiver is under standby	Press POWER key on the front panel to switch to operation mode
No signal when selecting channels	The signal cable is disconnected	Connect the signal cable securely
	Program parameters are set incorrectly	Set correct parameters
Picture only ,but no sound	Audio cable is not connected securely	Connect it securely
	System in MUTE mode	Press MUTE key on the RCU to restore volume
	Volume is set to minimum	Increase the volume to suitable level
	Audio setting parameter is wrong	Please go to Audio Setting menu, select proper audio mode and proper audio language
Sound only, but no picture	Video cable is not connected securely	Connect the video cable securely
	The current channel is in radio mode	Normal
Video and audio mismatch or abnormal sound	Audio channel is not set correctly	Select proper Audio channel
Picture is still or mosaic phenomenon	Signal is too weak	Check to make sure that the signal cord has been connected tightly
Remote control unit does not work	RCU is not aimed at the sensor on the front panel	Aim at the sensor on the front panel
	Not enough power in the battery of the remote control	Change battery

CAUTION: If the problems are still unsolved after you're done all of these. Do not open the STB yourself! Please contract the dealer, and the trained personnel will help you.

Appendix

Care and Maintenance

With proper care, your Set-Top Box will give you many years of service. Please follow these guidelines to get the maximum performance.

Placement

·Do not put the Set-Top Box near extremely hot, cold, humid or dusty places.

·Do not put the Set-Top Box near appliances that create magnetic fields.

Liquids

·Do not handle liquids near or on the Set-Top Box.

Cabinet

·Never open the cabinet or touch the parts inside.

·Wipe your Set-Top Box with a clean, dry cloth. Never use water, cleaning fluids, wax, or chemicals.

·Do not put heavy objects on top of the cabinet.

Temperature

·If your Set-Top Box is suddenly moved from a cold to a warm place, unplug the power cord for at least two hours so that moisture that may have formed inside the unit can dry completely.

Appendix

Specifications

General Specification

Broadcasting standard	ATSC
Power requirement	AC 100 ~ 240V, 50-60 Hz
Power consumption	20 watts / In standby:2 watts
Dimensions(W x D x H)	225 x 162 x 40 (mm)
Weight	0.76kg

RF Specification

Input Frequency	54 ~ 807 MHZ (VHF :2 ~13 / UHF : 14 ~ 69)
Channel Bandwidth	6M
Input Level	-83 ~ -5 dBm
Antenna	75-ohm external antenna terminal for VHF/UHF
Number of inputs/outputs	75-ohm VHF/UHF In/Out Video out 2 Analog Audio Out (R/L)